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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/667,500 | 09/23/2003 | Chung-hum Baik | 45340 | 1919 |

7590 01/27/2006

Roylance Abrams Berdo & Goodman
6th Floor
1300 19th Street, NW
Washington, DC 20036

EXAMINER

DAVIS, DAVID DONALD

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
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2652

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/667,500

Applicant(s)

BAIK ET AL.

Examiner

David D. Davis

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I in the reply filed on November 7, 2005 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 19-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 7, 2005.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7-11 and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazama et al (US 4,875,110). As per claims 1 and 9, Kazama et al shows in figure 1 a head 8 drum assembly for a tape player/recorder including a rotary drum 75, which rotatably supports a magnetic head 8 for recording and reproducing information. Figure 1 of Kazama et al additionally shows a motor stator provided in the fixed drum 3, and a motor rotor provided opposite to the motor stator. The motor rotor is connected to the rotary drum 75. A rotor case

Art Unit: 2652

19, as further shown in figure 1 of Kazama et al, of the motor rotor is directly bonded to an outer circumferential surface of the rotary drum 75.

As per claims 2 and 10, Kazama et al shows in figure 1 the motor stator including a magnetic yoke 22 and a stator coil 21 such that a substantially constant first gap is maintained between the magnetic yoke 22 and stator coil 21. As per claims 3 and 11, Kazama et al shows in figure 1 a substantially constant second gap is maintained between the motor rotor and motor stator. As per claims 7 and 15, Kazama et al shows in figure 1 a rotor magnet 18 with a magnetizing force of the rotor magnet 18 is controlled.

As per claims 8 and 16, Kazama et al shows in figure 1 that the magnetic force of the rotor magnet 18 is controlled to be lower than a conventional motor stator. As per claims 17 and 18, Figure 1 of Kazama et al also shows in figure 1 a fixed drum 3 press-fitted onto the lower part of a shaft 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

Art Unit: 2652

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 4-6 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazama et al (US 4,875,110). Kazama et al discloses the claimed invention. See description supra. However, Kazama et al is silent as to the substantially constant second gap being in the range of 0.3 mm to 0.4 mm such as 0.36 mm and the substantially constant first gap is within the range of 0 to 0.03 mm.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to specify the distance of gaps in the head drum assembly of Kazama et al. The rationale is as follows: the purpose of the gaps is to allow rotation of the head drum assembly. The gaps in the head drum assembly need not be in the range of 0.3 mm to 0.4 mm (i.e. 0.36 mm) or 0 to 0.03 mm. Realizing this, one of ordinary skill in the art at the time the invention was made would have been motivated to specify that the gaps were in the range of 0.3 mm to 0.4 mm (i.e. 0.36 mm) or 0 to 0.03 mm, which is well within the purview of a skilled artisan and absent an unobvious result, so as to effectively optimize the distance in the gaps so as to provide the best rotational values for the head drum assembly.

Response to Arguments

8. Applicant's arguments filed June 24, 2005 have been fully considered but they are not persuasive. On page 13, in the second full paragraph, applicant asserts that "Kazama does not disclose, teach or suggest bonding a rotor case directly to the outer circumferential surface of the

Art Unit: 2652

rotary drum whose inner surface faces the shaft. Instead, in Kazama, rotor yoke 19 of the motor rotor is fixedly mounted on rotary member 75 . . .” As stated supra, “in figure 1 of Kazama et al, of the motor rotor is directly bonded to an outer circumferential surface of the rotary drum 75”. Curiously, applicant has not discussed how rotary drum 75 of Kazama et al is unlike the claimed rotary drum in the instant application.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

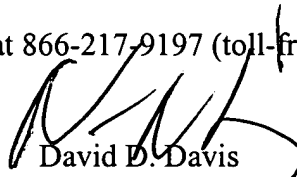
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Davis whose telephone number is 571-272-7572. The examiner can normally be reached on Monday thru Friday between 7:30-4:00.

Art Unit: 2652

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. L. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David D. Davis
Primary Examiner
Art Unit 2652

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